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NATIONAL INTERAGENCY
INCIDENT MANAGEMENT SYSTEM

WILDLAND FIRE QUALIFICATION SUBSYSTEM GUIDE

PART 2 FIRE USE

draft

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NATIONAL INTERAGENCY INCIDENT MANAGEMENT SYSTEM

WILDLAND FIRE QUALIFICATION SUBSYSTEM GUIDE

310-1 (Part 2)

draft

Prepared by

National Wildfire Coordinating Group
Incident Command System Working Team

1998

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FIRE USE QUALIFICATION SUBSYSTEM

Part 2: Fire Use Qualification Subsystem

A. INTRODUCTION

The Fire Use Qualification Subsystem (PMS 310-1, Part 2), developed under the sponsorship of the National Wildfire Coordinating Group (NWCG), provides guidance to participating agencies and organizations. This guidance is given for the establishment of standards for wildland and prescribed fire personnel working on planned fire activities used to achieve land management objectives. Personnel meeting the established standards are qualified for participation on planned interagency fires used to achieve land management objectives of moderate complexity and higher (see section G).

Personnel who are certified in a position prior to the implementation of this subsystem may retain such certification at the discretion of their agency. To qualify in any other position, the individual must meet the standards identified herein for wildland fires used to achieve land management objectives and prescribed fires of moderate and above complexity levels involving multi-agency participation.

This system is designed to:

1. Establish minimum training, skills, knowledge, and experience for wildland and prescribed fire positions to which all participating agencies have agreed for participation in planned interagency wildland and prescribed fire land management activities. Standards may be augmented to meet specific needs within an agency, but cannot be imposed on cooperators meeting the minimums outlined in this guide.

2. Allow cooperating agencies at low complexity levels to jointly agree upon training, skills, knowledge, experience, and physical fitness standards required to meet fire needs at the local level. A single agency can also establish its own qualifications for higher complexity burns where the resources of other agencies are not utilized.

Any organization or agency intending to supply resources to wildland fires used to achieve land management objectives and prescribed fires of moderate and above complexity levels involving multi-agency participation be expected to meet the minimum requirements described in this guide.

Performance base system administration precesses and definitions can be found in the NWCG Task Book Administrator's Guide 330-1.

B. DESCRIPTION OF THE SUBSYSTEM

The Fire Use Qualifications System is a "performance based" qualifications system. In this system, the primary criteria for qualification is individual performance as observed by an evaluator using approved standards. This system differs from previous prescribed fire qualifications systems which have been "training based." Training based systems use the completion of training courses or a passing score on an examination as a primary criteria for qualification.

A performance based system has two advantages over a training based system:

! Qualification is based upon real performance, as measured on the job, versus perceived performance, as measured by an examination or classroom activities.

! Personnel who have learned skills from sources outside prescribed fire, such as agency specific training programs or training and work in structural fire, law enforcement, search and rescue, etc., may not need to complete suggested courses in order to qualify in a fire use position.

1. The components of the Fire Use Qualification System are as follows:

a. Position Task Books (PTB) contain all critical tasks which are required to perform the job. There is a PTB for each position included in the system. Tasks in each PTB have been established by experts from all NWCG agencies and geographical areas of the United States, tested on prescribed fires, and approved by NWCG. PTB's have been designed in a format which will allow documentation of a trainee's ability to perform each task. Tasks pertaining to tactical decision making and safety are flagged and require a position performance on a wildland or prescribed fire. Remaining tasks may be evaluated through other means such as simulation, insect eradication, or other emergency and non-emergency work. Successful completion of all tasks required of the position, as determined by an evaluator, will be the basis for recommending certification.

The following positions utilize the same PTB for the Type 2 and Type 1 levels (RXM1/2, RXB1/2, RXI1/2). It is expected that for those positions having the same PTB the trainee will complete a second book for the next complexity level. Example: A person completes a PTB for RXB2 and is now qualified in that position. With adequate experience and any required training received, the local office makes a determination that the person is ready for advancement to the RXB1 position. The local office issues a new RXB1/2 PTB and in crossing out the number 2 from the PTB cover, identifies that the trainee is working to complete the RXB1 position. In some cases, there are tasks which are only performed at the higher complexity level. These tasks are noted in the PTB.

IMPORTANT NOTE: Training requirements include completion of all required training courses prior to obtaining a PTB. Use of the suggested training courses or job aids is recommended to prepare the employee to perform in the position. An employee should not be given a position

performance assignment if training would be necessary to complete the required tasks of the position.

b. Training courses and job aids provide the specific skills and knowledge required to perform tasks as prescribed in the PTB. This provides a direct link between training and job performance. Required training has been held to the minimum required for safe operations on a wildland or prescribed fire. Although most training courses are not "required," all training will be available and is still intended to be the primary means by which personnel can prepare for qualification. The decision on development of a specific job aid and/or a training course will be made at the time of development. Current training courses are expected to be used until the newly-developed job aids or courses are available.

c. Agency certification is issued in the form of a qualification card certifying that the individual is qualified to perform in a specified position. Individuals are responsible for demonstrating proof of qualification on a wildland or prescribed fire for all fire use positions..

2. Responsibilities - The local office is responsible for selecting trainees, proper use of task books, and certification of trainees; see the Task Book Administrator's Guide, PMS 330-1, for further information.

The individual is responsible for showing proof of qualifications, completing training courses, and completing a position task book.

Management of training and qualification programs on wildland and prescribed fires is the responsibility of the local agency. Documentation of training and experience for contractors is the responsibility of the contractor. Certification of contractors is the responsibility of the administrative unit contracting for the work.

C. CERTIFICATION AND RECERTIFICATION

Management at the sending unit is responsible for certifying and recertifying qualifications of its personnel based upon the requirements of this guide. This responsibility includes evaluation of personnel for recertification in cases where position qualifications have been lost as a result of a lack of current experience.

A key component in the certification or recertification process is the subjective evaluation by management of an individual's capability to perform in a position. Completion of prerequisite training and experience requirements alone do not guarantee that an individual is qualified to perform the work. This is the primary reason for requiring performance in many positions before certification is granted.

The quality of experiences gained in a given position should be closely evaluated when making a determination for advancement to the next higher position or to a different position. The quality

of experience may relate to the number of fuel types in which an individual has performed, size of the organization in terms of personnel and equipment, and the number of assignments or complexity of operations to include the different types of resources managed.

This guide does not recommend the number of times an individual should be evaluated before advancement. That is a determination that a supervisor must make based on task evaluations, position performance evaluations, and their own judgement on the quality of an individual's experience. For advancement in fire use positions which require a prerequisite in a suppression position, an individual need not be currently qualified in that suppression position provided he/she has previously achieved that qualification level.

D. CURRENCY REQUIREMENTS

Local agencies will determine currency requirements for fire use positions. For suppression positions used on prescribed fires, currency requirements (310-1, Part 1) are mandatory.

E. CHALLENGE PROCESS/REQUIRED TRAINING

Required training (those courses designated as required in section J) and required experience are mandatory and cannot be challenged. It is not viewed as reasonable to challenge any positions due to the availability of task books and training courses to trainees. The process of demonstrating the abilities to perform the position is the completion of a task book.

F. FITNESS STANDARDS

Physical fitness requirements for fire use positions will be established by the certifying agency. All NWCG agencies will accept physical fitness requirements of a single agency provided that other position qualification requirements are met.

G. PRESCRIBED FIRE COMPLEXITY

There are many factors that determine the complexity of a prescribed fire such as size; location; threat to life and property; political, social, and environmental sensitivity; organizational complexity; jurisdictional boundaries; values to be protected; fuel type; topography; and agency policy. A complexity determination will be recommended for all prescribed fires and an NWCG Guide has been developed. This Guide represents an aid for use in this process, although agencies can develop their own specific determination procedures. For burns evaluated to have low complexity, the agency and its local cooperators will jointly agree on qualifications required. A single agency can also establish its own qualifications for higher complexity burns where the resources of other agencies are not utilized. For burns which are of moderate complexity or higher **and** on which resources of more than one agency are utilized, NWCG qualifications are required.

H. REVIEW AND UPDATE OF THE QUALIFICATION SUBSYSTEM

To keep the Fire Use Qualification Subsystem viable and current, it is necessary to have a process for making revisions. This process requires users of the system to submit proposed revisions (in writing) through agency channels to the Fire Use Working Team (FUWT).

While the FUWT may handle special problems at any time, the planned revision interval will be three (3) years. Users may submit proposed revisions as needs are identified. The FUWT will review the proposals and recommend adoption or rejection by NWCG.

I. POSITION CATEGORIES

Ten positions and three functions have been identified. Not every position or function is needed on every fire, and one individual may perform several functions.

The following four types of positions are identified in this guide:

1. Wildland Fire Use Positions - One or more of the following positions are essential for the successful use of wildland fire to achieve land management objectives and/or prescribed fire. They require a level of specific skill and knowledge. Personnel should be assigned only to positions in which they have demonstrated the ability to perform successfully:

    Fire Use Manager (FUMA)
    Prescribed Fire Behavior Analyst (RXFA)
    Prescribed Fire Behavior Monitor (RXFM)
    Fire Effects Monitor (FEMO)
    Ignition Specialist Type 1 (RXI1)
    Ignition Specialist Type 2 (RXI2)

2. Prescribed Fire Positions - The following positions are used in prescribed fire operations and are included in the qualifications system. These positions are unique to prescribed fire but there skills may be useful on wildland fires. They require a level of specific skill and knowledge to perform prescribed fire responsibilities. Personnel should be assigned only to positions in which they have demonstrated the ability to perform successfully.

    Prescribed Fire Manager Type 1 (RXM1)
    Prescribed Fire Manager Type 2 (RXM2)
    Prescribed Fire Burn Boss Type 1 (RXB1)
    Prescribed Fire Burn Boss Type 2 (RXB2)

3. ICS Positions - Any position found on the ICS organizational chart in the Operational System Description (OSD) can be used. Training may include required and suggested courses,

and job aids. The following list presents ICS positions potentially relevant for fire use implementation activities:

ICS POSITIONS AND MNEMONICS

Agency Representative (AREP)
Air Operations Branch Director (AOBD)
Air Support Group Supervisor (ASGS)
Air Tactical Group Supervisor (ATGS)
Air Tanker/Fixed Wing Coordinator (ATCO)
Base/Camp Manager (BCMG)
Claims Specialist (CLMS)
Commissary Manager (CMSY)
Communications Unit Leader (COML)
Compensation/Claims Unit Leader (COMP)
Compensation-for-Injury Manager (INJR)
Cost Unit Leader (COST)
Demobilization Unit Leader (DMOB)
Display Processor (DPRO)
Division/Group Supervisor (DIVS)
Documentation Unit Leader (DOCL)
Equipment Manager (EQPM)
Equipment Time Recorder (EQTR)
Facilities Unit Leader (FACL)
Field Observer (FOBS)
Finance/Administrative Section Chief Type 1 (FSC1)
Finance/Administrative Section Chief Type 2 (FSC2)
Food Unit Leader (FDUL)
Ground Support Unit Leader (GSUL)
Helibase Manager 1-3 (HEB2)
Helibase Manager 4+ (HEB1)
Helicopter Coordinator (HLCO)
Helicopter Crewmember (HECM)
Helicopter Manager (HEMG)
Interagency Resource Representative (IARR)
Information Officer Type 1 (IOF1)
Information Officer Type 2 (IOF2)
Information Officer Type 3 (IOF3)
Liaison Officer (LOFR)
Logistics Section Chief Type 1 (LSC1)
Logistics Section Chief Type 2 (LSC2)
Medical Unit Leader (MEDL)
Operations Branch Director (OPBD)
Operations Section Chief Type 1 (OSC1)
Operations Section Chief Type 2 (OSC2)
Ordering Manager (ORDM)
Personnel Time Recorder (PTRC)
Planning Section Chief Type 1 (PSC1)
Planning Section Chief Type 2 (PSC2)
Procurement Unit Leader (PROC)
Receiving/Distribution Manager (RCDM)
Resource Unit Leader (RESL)
Safety Officer (SOF1)
Safety Officer (SOF2)
Security Manager (SECM)
Service Branch Director (SVBD)
Situation Unit Leader (SITL)
Strike Team Leader Dozer (STDZ)
Strike Team Leader Crew (STCR)
Strike Team Leader Engine (STEN)
Strike Team Leader Tractor/Plow (STPL)
Staging Area Manager (STAM)
Status/Check-In Recorder (SCKN)
Supply Unit Leader (SPUL)
Support Branch Director (SUBD)
Task Force Leader (TFLD)
Time Unit Leader (TIME)

4. Suppression Skill Positions - These positions have been identified as unique to wildland fire suppression because they require a level of skills and knowledge to perform wildland fire suppression responsibilities and were not identified in the OSD. These positions, as described in 310-1, Part 1, also possess the skills and knowledge to perform in other fire management organizations.

The following is a list of Part 1 skill positions that may be needed and can be used in wildland and fire use activities:

Firefighter (FFT2)
Firefighter (FFT1)
Crew Boss (Single Resource) (CRWB)
Dozer Boss (Single Resource) (DOZB)
Engine Boss (Single Resource) (ENGB)
Felling Boss (Single Resource) (FELB)
Firing Boss (Single Resource) (FIRB)
Strike Team Leader-Crew (STCR)
Strike Team Leader-Engine (STEN)
Strike Team Leader-Dozer (STDZ)
Strike Team Leader-Tractor Plow (STPL)
Task Force Leader (TFLD)
Division/Group Supervisor (DIVS)
Operations Section Chief, Type 2 (OSC2)
Operations Section Chief, Type 1 (OSC1)

The following **functions** are critical to successful operations. These functions appear on the Flow Chart in Appendix A:

1. Fire Use Planner: The Fire Use Planner is critical. Good project implementation plans usually equate into successful operations. The function of Fire Use Planner may be accomplished by one individual or an interdisciplinary team. The planning function was not formally tasked but the knowledge, skills, and abilities required to perform this function were identified and included in the curriculum. Setting the qualification standards of the Fire Use Planner is an agency responsibility.

2. Holding Specialist - The function is necessary to wildland and prescribed fire implementation and a specific individual must be identified to complete these responsibilities. The knowledge, skills, and abilities of the position are a duplication of those available within the Part 1. The planning process will be used to identify appropriate holding resources, and those resources will be obtained from positions identified in Part 1. Holding Specialist requirements will be identified during the planning process, based on the skills needed, work performed, and burn complexity projected. A specific position from Part 1 will be identified to complete the Holding Specialist responsibilities. The exact position title, however, will not utilize the Holding Specialist terminology, but will utilize the existing Part 1 position title (i.e., FFT1, SRB, STCR, etc.).

3. Crew Member - The knowledge, skills, and abilities of the function are the same as a Firefighter Type 2 (FFT2) identified in Part 1. The position, however, is still necessary to completion of prescribed fires and represents the basic resource to be used in all operational functions.

J. FIRE USE POSITION QUALIFICATIONS

The normal flow of training and qualifications is a building block from crew member through manager positions. The qualifications for each fire use position are established based on the following criteria:

REQUIRED TRAINING	A course that contains critical knowledge and skills required for safe operations on a wildland fires used to achieve land management objectives and prescribed fires of moderate and above complexity levels involving multi-agency participation. Training in this course or an agency-equivalent course with like learning and performance objectives is mandatory. Statistics indicate that lack of this type of knowledge and/or skill may have contributed to accidents.
SUGGESTED TRAINING	Training designed to provide the candidate with the knowledge, skills, and abilities to be successful. Successful completion of this training will significantly improve position task book skills and job performance. Individuals must still demonstrate ability to perform tasks whether or not training is taken.
EXPERIENCE	Experience includes: (1) Satisfactory performance in prerequisite positions and (2) a satisfactory position performance assignment in the position to which qualifications are being sought. These should be based on fuel groups. The fuel group qualifications will be tracked in task book evaluations and as a data entry category for the computerized qualifications system.
PHYSICAL FITNESS	Arduous, Moderate, Light, None, or Agency-established requirements.
OTHER ASSIGNMENTS THAT MAINTAIN CURRENCY	List of all the qualified position assignments.

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IGNITION SPECIALIST 2 (RXI2)

REQUIRED TRAINING None

SUGGESTED TRAINING	S-234 and training in appropriate ignition devices
EXPERIENCE	Satisfactory performance in any Single Resource Boss position AND Satisfactory performance in the Holding Function AND Successful completion of a RXI2 position performance assignment in representative fuel group(s)
PHYSICAL FITNESS	Agency-established
OTHER ASSIGNMENTS THAT MAINTAIN CURRENCY	Firing Boss

IGNITION SPECIALIST 1 (RXI1)

REQUIRED TRAINING	None
SUGGESTED TRAINING	None
EXPERIENCE	Satisfactory performance as an Ignition Specialist 2 AND Successful completion of a RXI1 position performance assignment in representative fuel group(s)
PHYSICAL FITNESS	Agency-established
OTHER ASSIGNMENTS THAT MAINTAIN CURRENCY	Ignition Specialist 2

PRESCRIBED FIRE BURN BOSS 2 (RXB2)

REQUIRED TRAINING	S-390
SUGGESTED TRAINING	RX-300, RX-340, S-301
EXPERIENCE	Satisfactory performance as an Ignition Specialist 2 AND Satisfactory performance as an Incident Commander Type 4 AND

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	Successful completion of a RXB2 position performance assignment in representative fuel group(s)
PHYSICAL FITNESS	Agency-established
OTHER ASSIGNMENTS THAT MAINTAIN CURRENCY	Incident Commander Type 3, 2 or 1

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PRESCRIBED FIRE MANAGER (RXM1)

REQUIRED TRAINING	None
SUGGESTED TRAINING	I-300, Fire Program Management
EXPERIENCE	Satisfactory performance as a Prescribed Fire Burn Boss 1 AND Successful completion of a RXM1 position performance assignment in representative fuel group(s)
PHYSICAL FITNESS	Agency-established
OTHER ASSIGNMENTS THAT MAINTAIN CURRENCY	

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FIRE USE MANAGER (FUMA)

REQUIRED TRAINING	None
SUGGESTED TRAINING	S-541 or regional equivalent
EXPERIENCE	Satisfactory performance as a RXB2 AND Successful completion of a FUMA position performance assignment in representative fuel group(s)
PHYSICAL FITNESS	Moderate
OTHER ASSIGNMENTS THAT MAINTAIN CURRENCY	Incident Commander Type 3, 2 or 1, Burn Boss 2, Burn Boss 1

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FIRE EFFECTS MONITOR (FEMO)

REQUIRED TRAINING	S-290
SUGGESTED TRAINING	RX-340, S-341
EXPERIENCE	Satisfactory performance as a Firefighter Type 2 AND Successful completion of a FEMO position performance assignment in representative fuel group(s)
PHYSICAL FITNESS	Arduous
OTHER ASSIGNMENTS THAT MAINTAIN CURRENCY	

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PRESCRIBED FIRE BEHAVIOR MONITOR (RXFM)

REQUIRED TRAINING	S-290
SUGGESTED TRAINING	S-244
EXPERIENCE	Satisfactory performance as a Firefighter Type 2 AND Successful completion of a RXFM position performance assignment in representative fuel group(s)
PHYSICAL FITNESS	Arduous
OTHER ASSIGNMENTS THAT MAINTAIN CURRENCY	Field Observer

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PRESCRIBED FIRE BEHAVIOR ANALYST (RXFA)

REQUIRED TRAINING	S-490, S-590, S-492, S-493
SUGGESTED TRAINING	RX-450, current processing system for fire behavior calculations
EXPERIENCE	Satisfactory performance as a Fire Behavior Analyst AND Successful completion of a RXFA position performance assignment in representative fuel group(s) OR Satisfactory performance as a Prescribed Fire Behavior Monitor AND Satisfactory performance as an Ignition Specialist 2 AND Successful completion of a RXFA position performance assignment in representative fuel group(s)
PHYSICAL FITNESS	Moderate
OTHER ASSIGNMENTS THAT MAINTAIN CURRENCY	Fire Behavior Analyst

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APPENDIX A

FIRE USE QUALIFICATION FLOW CHARTS

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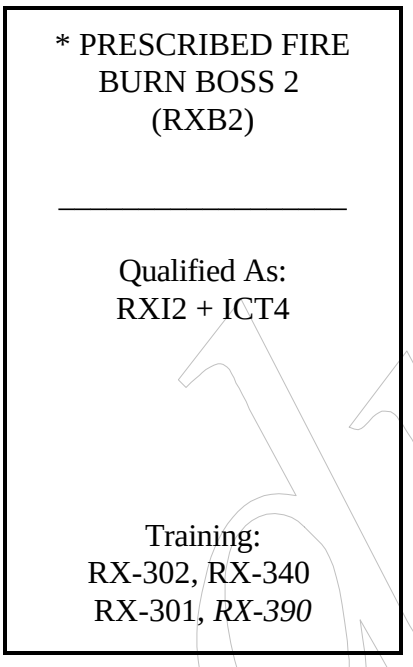
KEY TO QUALIFICATION FLOW CHARTS

The charts in this appendix show the progression of qualifications from one position to another within the system. These charts <u>are not</u> organization charts.

Each box withing the chart contains information pertaining to prerequisite qualifications, training, and physical fitness and should be read as shown in the diagram below:



An asterisk (*) indicates that a position performance assignment is required in a representative fuel group(s) prior to final qualification in this position.

Job title and mnemonics identifier for position.

Lists position by mnemonics for which a prerequisite qualification is required.

Lists training courses ("RX', "S" and "I" courses and "J" job aids) which will support performance and qualification in this position. (*Italics* indicates required courses.)

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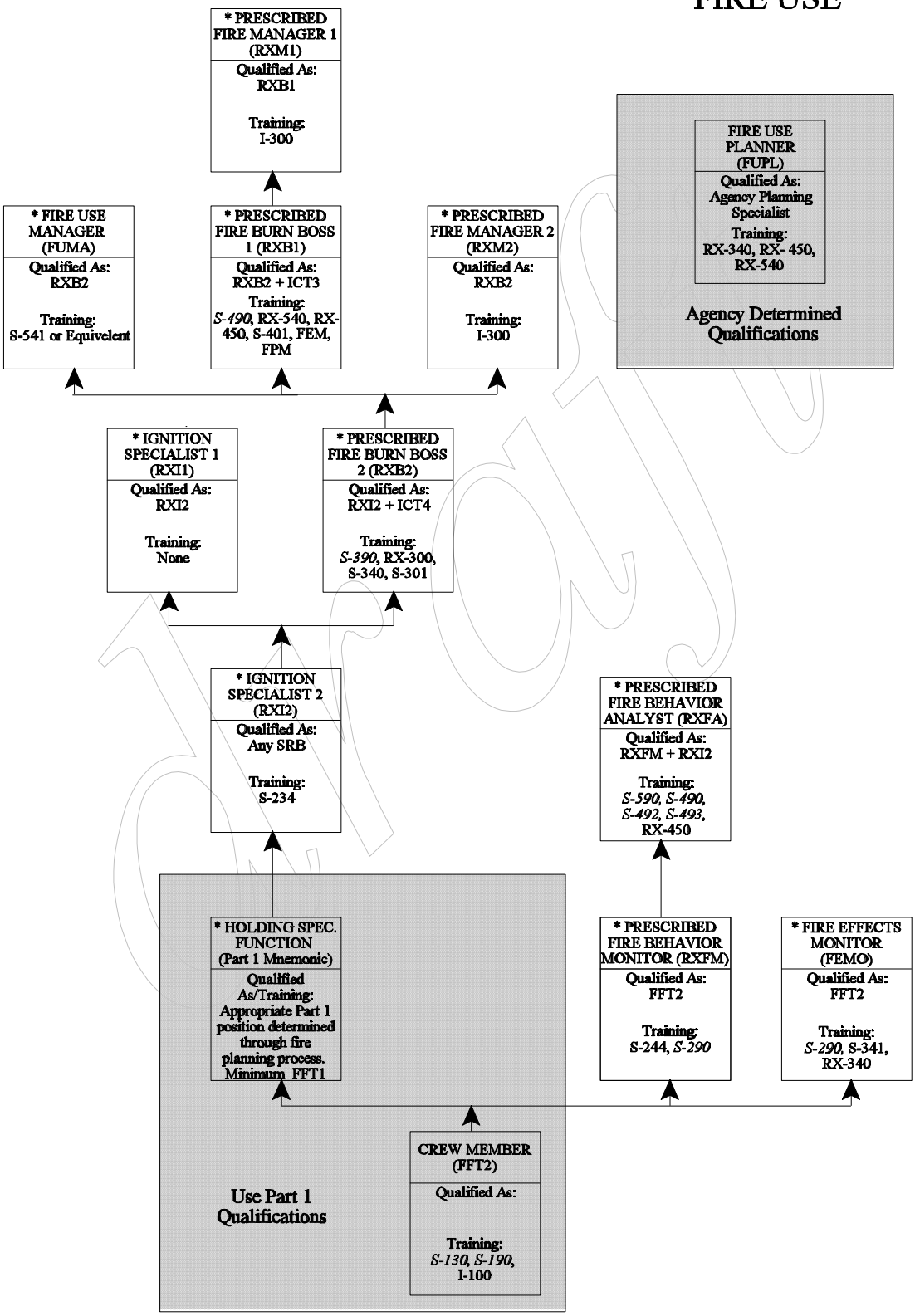
FIRE USE


* PRESCRIBED FIRE MANAGER 1 (RXM1)
Qualified As: RXB1
Training: I-300
* FIRE USE MANAGER (FUMA)
Qualified As: RXB2
Training: S-541 or Equivelent
* PRESCRIBED FIRE BURN BOSS 1 (RXB1)
Qualified As: RXB2 + ICT3
Training: S-490, RX-540, RX-450, S-401, FEM, FPM
* PRESCRIBED FIRE MANAGER 2 (RXM2)
Qualified As: RXB2
Training: I-300
FIRE USE PLANNER (FUPL)
Qualified As: Agency Planning Specialist
Training: RX-340, RX- 450, RX-540
Agency Determined Qualifications
* IGNITION SPECIALIST 1 (RXI1)
Qualified As: RXI2
Training: None
* PRESCRIBED FIRE BURN BOSS 2 (RXB2)
Qualified As: RXI2 + ICT4
Training: S-390, RX-300, S-340, S-301
* IGNITION SPECIALIST 2 (RXI2)
Qualified As: Any SRB
Training: S-234
* PRESCRIBED FIRE BEHAVIOR ANALYST (RXFA)
Qualified As: RXFM + RXI2
Training: S-590, S-490, S-492, S-493, RX-450
* HOLDING SPEC. FUNCTION (Part 1 Mnemonic)
Qualified As/Training: Appropriate Part 1 position determined through fire planning process. Minimum FFT1
* PRESCRIBED FIRE BEHAVIOR MONITOR (RXFM)
Qualified As: FFT2
Training: S-244, S-290
* FIRE EFFECTS MONITOR (FEMO)
Qualified As: FFT2
Training: S-290, S-341, RX-340
CREW MEMBER (FFT2)
Qualified As:
Training: S-130, S-190, I-100
Use Part 1 Qualifications

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APPENDIX B

FIRE USE TRAINING COURSES

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Fire Use Skill Courses

S-234	Ignition Methods and Procedures
S-244	Field Observer
RX-300	Prescribed Fire Implementation
RX-340	Introduction to Fire Effects
S-341	Fire Effects Monitoring
RX-450	Smoke Management Techniques
S-492	Long Term Fire Risk Assessment
S-493	FARSITE: Fire Growth Simulation
RX-540	Applied Fire Effects
S-541	National Parks and Wilderness Fire Management
S-590	Wildland Fire Behavior Analysis

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